

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

Claim 1 (Currently Amended): A polarizing element comprising:
a layer including liquid crystal molecules; and
a polarizer having a transmission axis,
wherein the liquid crystal molecules have a chiral smectic texture of a helical configuration, the an axis of the a molecular helix of the helical configuration of each of the liquid crystal molecules is along a direction other than a direction normal to a surface of the layer, and a direction of an orthogonal projection of the axis onto the surface of the layer is substantially at 90° with respect to the transmission axis of the polarizer.

Claim 2 (Original): The polarizing element of claim 1, wherein the layer has a chiral smectic C texture.

Claim 3 (Original): The polarizing element of claim 1, wherein the chiral smectic texture is formed by liquid crystal molecules to be fixed one of physically and by a chemical reaction.

Claim 4 (Original): The polarizing element of claim 2, wherein the chiral smectic texture of the helical configuration is formed by liquid crystal molecules which are fixed one of physically and by a chemical reaction.

Claim 5 (Original): The polarizing element of claim 1, wherein the polarizer is one of an iodine-type polarizing plate, a dye-type polarizing plate and a polyvinylene-type polarizing plate, and the polarizer has a degree of polarization of at least 98%.

Claim 6 (Original): The polarizing element of claim 1, wherein the layer is formed on a transparent substrate.

Claim 7 (Original): The polarizing element of claim 6, wherein the transparent substrate is formed by one of a cellulose-type resin, a norbornene-type resin and a polycarbonate-type resin.

Claim 8 (Original): The polarizing element of claim 6, wherein the transparent substrate also serves as a protective film for the polarizer.

Claim 9 (Original): The polarizing element of claim 1, wherein, of natural light that is incident from the direction normal to the surface of the layer, a linearly polarized light component whose vibration direction is substantially at 90° to the orthogonal projection is

transmitted and a vibration direction of a linearly polarized light component whose vibration direction is substantially parallel to the orthogonal projection is substantially altered by 90° to be transmitted.

Claim 10 (Original): The polarizing element of claim 1, wherein the axis forms an oblique angle of from 5° to 90° with respect to the direction normal to the surface of the layer.

Claim 11 (Currently Amended): A polarizing element comprising:
a layer including liquid crystal molecules; and
a polarizer having a transmission axis,
wherein, the liquid crystal molecules have a chiral smectic C texture of a helical configuration, the an axis of the a molecular helix of the helical configuration of each of the liquid crystal molecules is along a direction other than a direction normal to a surface of the layer, a direction of an orthogonal projection of the axis onto the surface of the layer is substantially at 90° with respect to the transmission axis of the polarizer, and, of natural light that is incident from the direction normal to the surface of the layer, a linearly polarized light component whose vibration direction is substantially at 90° to the orthogonal projection is transmitted and a vibration direction of a linearly polarized light component whose vibration direction is substantially parallel to the orthogonal projection is substantially altered by 90° to be transmitted.

Claim 12 (Original): The polarizing element of claim 11, wherein the chiral smectic C texture is formed by liquid crystal molecules to be fixed one of physically and by a chemical reaction.